



US009162135B2

(12) **United States Patent**
Niu

(10) **Patent No.:** **US 9,162,135 B2**
(45) **Date of Patent:** **Oct. 20, 2015**

(54) **MULTIFUNCTIONAL PLAY TENT**

(71) Applicant: **D.J. TOYS ENTERPRISE CORP.**,
Taichung (TW)

(72) Inventor: **Li-Yang Niu**, Taichung (TW)

(73) Assignee: **D.J. TOYS ENTERPRISE CORP.**,
Taichung (TW)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 306 days.

(21) Appl. No.: **13/828,313**

(22) Filed: **Mar. 14, 2013**

(65) **Prior Publication Data**

US 2014/0274490 A1 Sep. 18, 2014

(51) **Int. Cl.**

A63B 63/00 (2006.01)

A63B 71/04 (2006.01)

A63B 63/08 (2006.01)

E04H 15/00 (2006.01)

(52) **U.S. Cl.**

CPC **A63B 71/04** (2013.01); **A63B 63/00**
(2013.01); **A63B 63/083** (2013.01); **A63B**
2063/001 (2013.01); **A63B 2208/12** (2013.01);
A63B 2209/10 (2013.01); **A63B 2210/50**
(2013.01); **E04H 15/006** (2013.01)

(58) **Field of Classification Search**

CPC .. **A63B 63/004**; **A63B 63/00**; **A63B 2208/12**;
A63B 2063/001; **A63B 2210/54**
USPC 473/478, 485; 273/352, 400–402;
446/110, 227; 52/2.11; D6/610

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

600,712	A *	3/1898	Brown	473/107
5,722,446	A *	3/1998	Zheng	135/125
5,788,242	A *	8/1998	Rudell et al.	273/317.3
5,833,557	A *	11/1998	Cole	473/472
6,073,643	A *	6/2000	Zheng	135/125
6,082,386	A *	7/2000	Zheng	135/126
6,192,635	B1 *	2/2001	Zheng	135/126
6,607,455	B1 *	8/2003	Petras	473/478
6,766,815	B2 *	7/2004	Zheng	135/143
7,031,147	B2 *	4/2006	Zheng	361/679.01
7,363,932	B2 *	4/2008	Zheng	135/126
7,404,562	B2 *	7/2008	Chen et al.	273/317.3
2014/0274490	A1 *	9/2014	Niu	473/478

* cited by examiner

Primary Examiner — Gene Kim

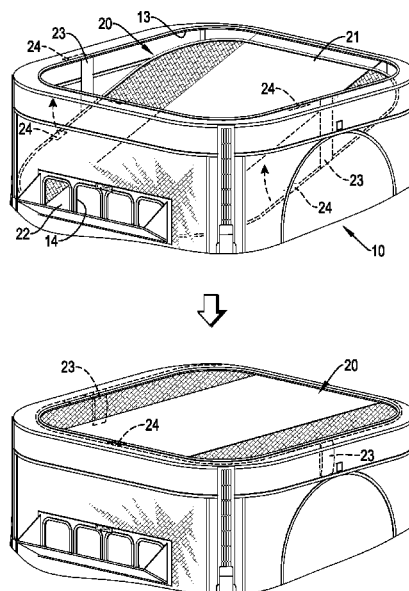
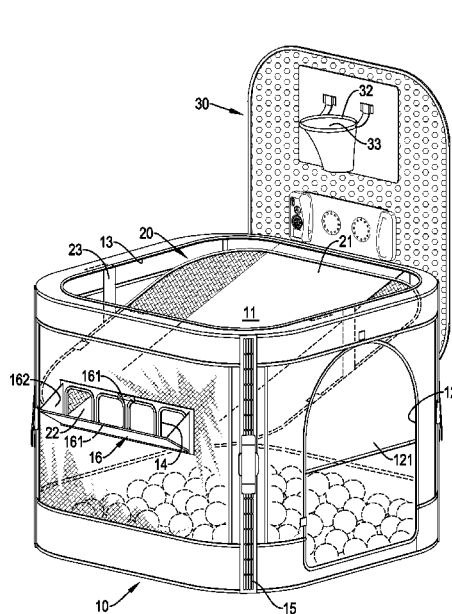
Assistant Examiner — M Chambers

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch &
Birch, LLP

(57) **ABSTRACT**

A play tent has a tent body, a roof, and a game device board. The tent body has a ball opening. The roof is connected with the tent body and has a ball end moveable relative to the tent body to correspond to the top of the tent body or the ball opening. The game device board is mounted on the tent body. When the ball end is moved to a position corresponding to the ball opening, a child can pitch a ball towards the game device board, and then the ball rolls to the ball opening, such that the child can pitch the ball again. When the ball end is moved to a position corresponding to the top of the tent body, the child can be engaged in other activities inside the tent body. Therefore, the play tent can provide multiple functions for use.

14 Claims, 8 Drawing Sheets



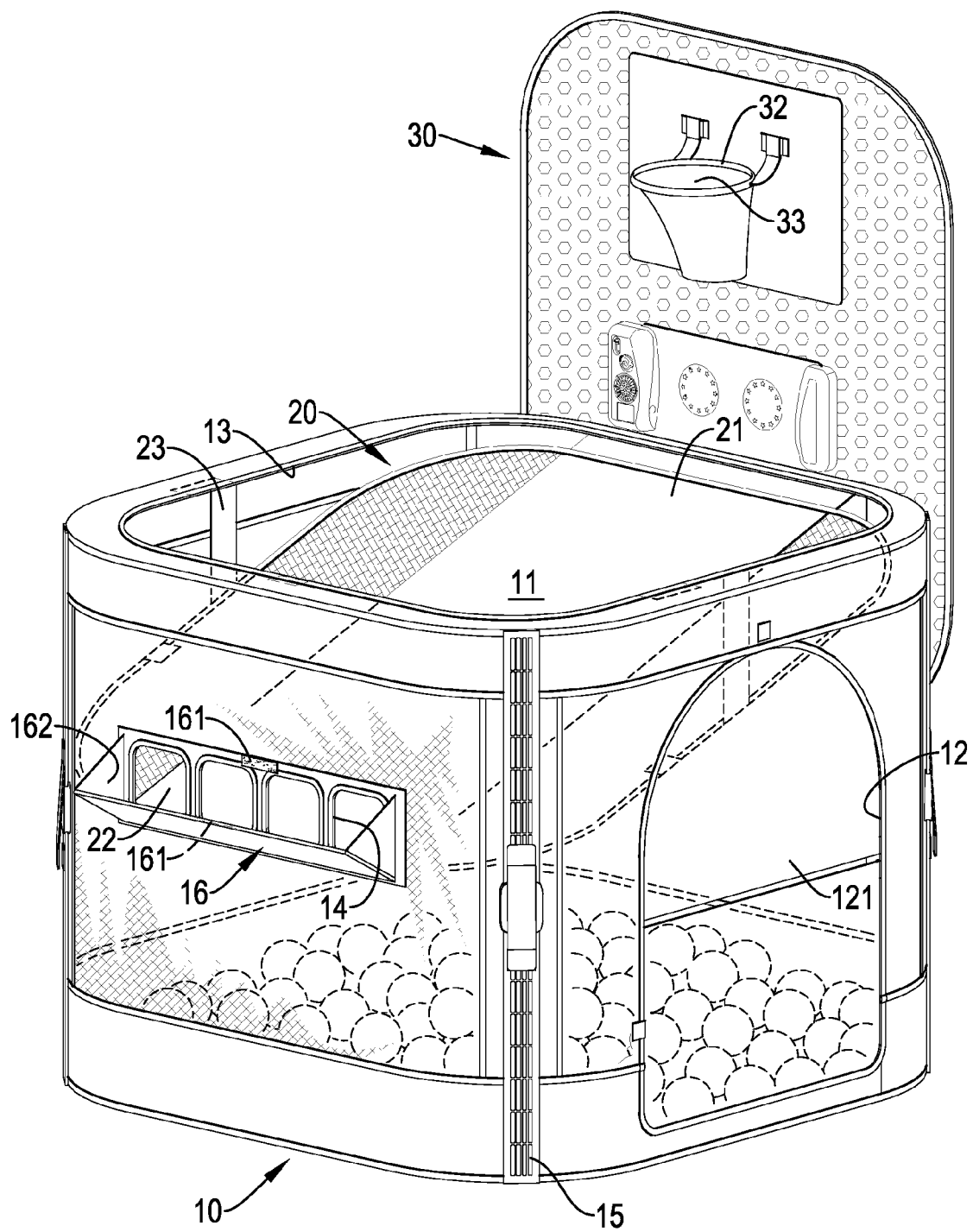


FIG.1

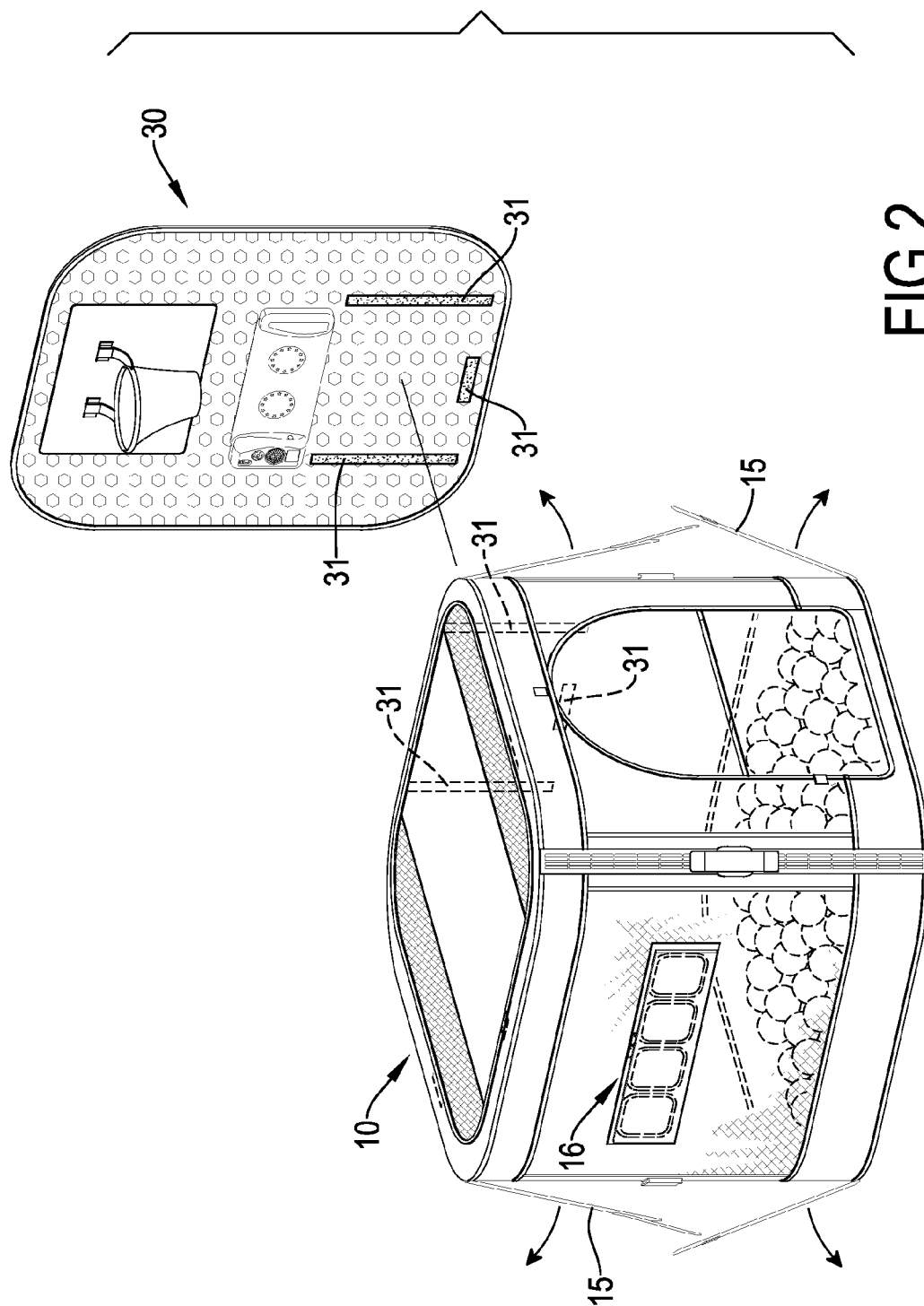


FIG. 2

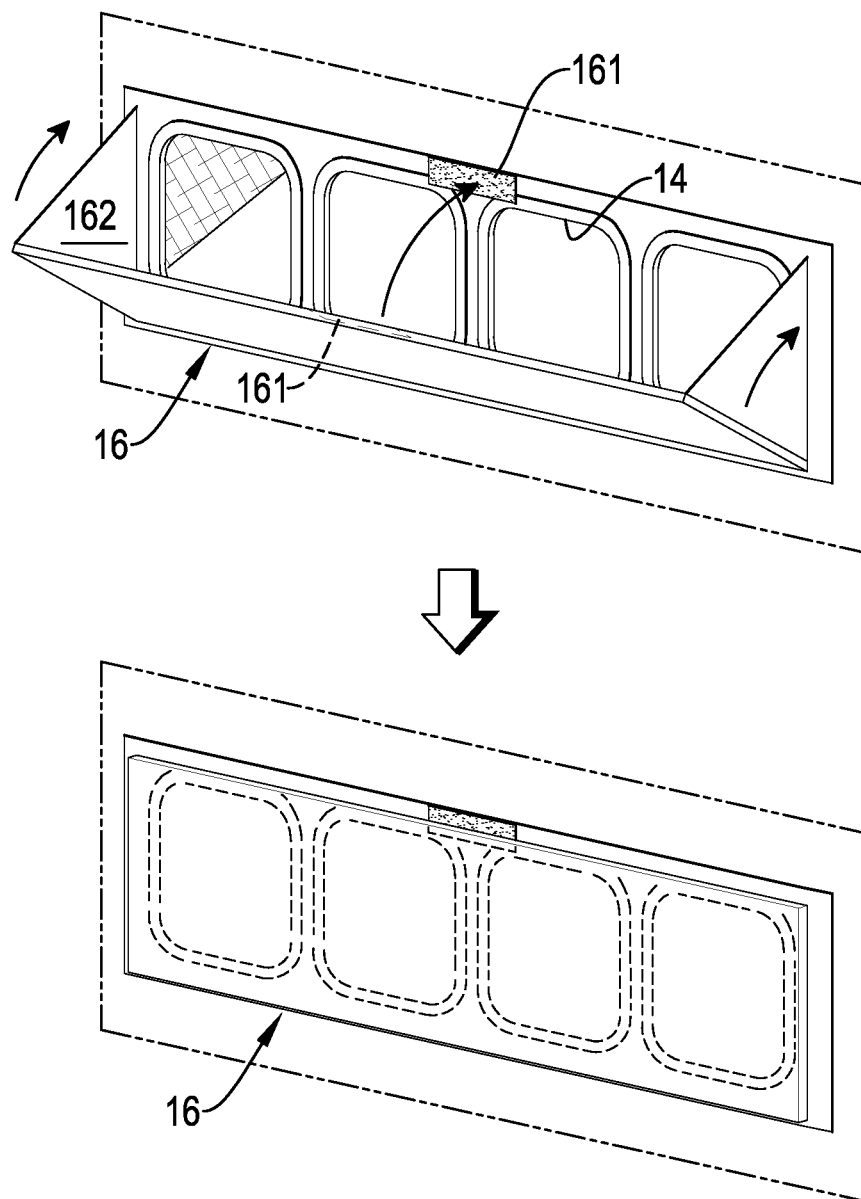


FIG.3

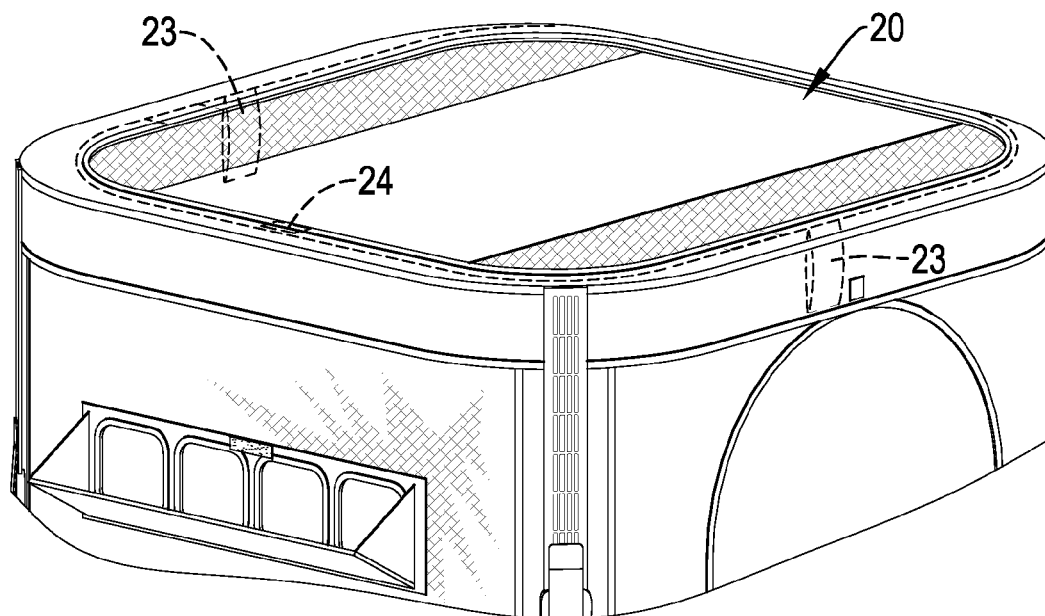
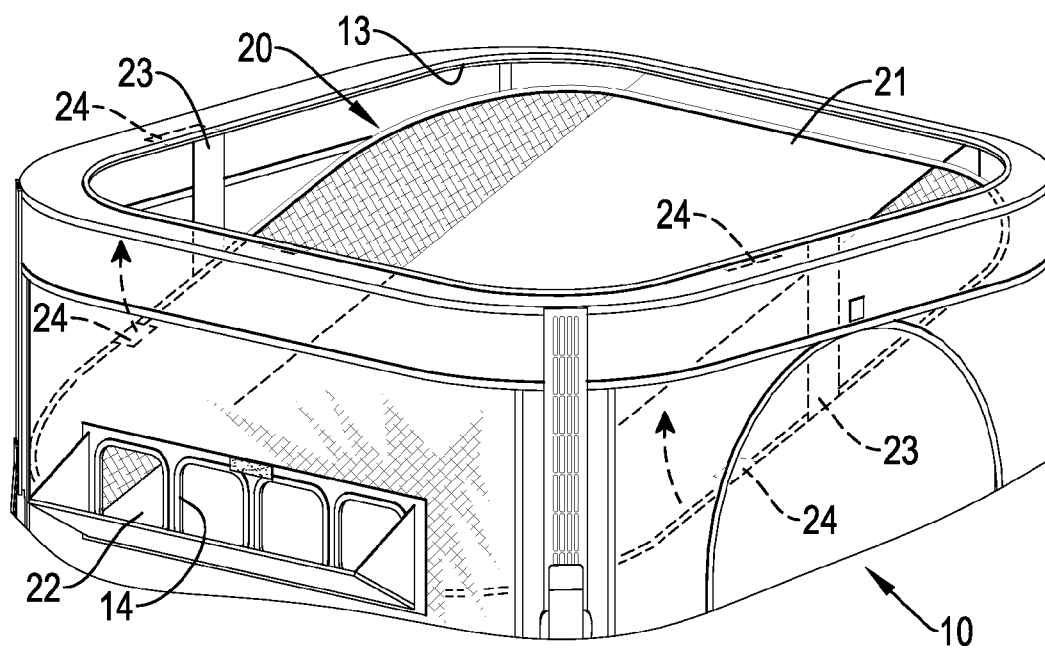


FIG.4

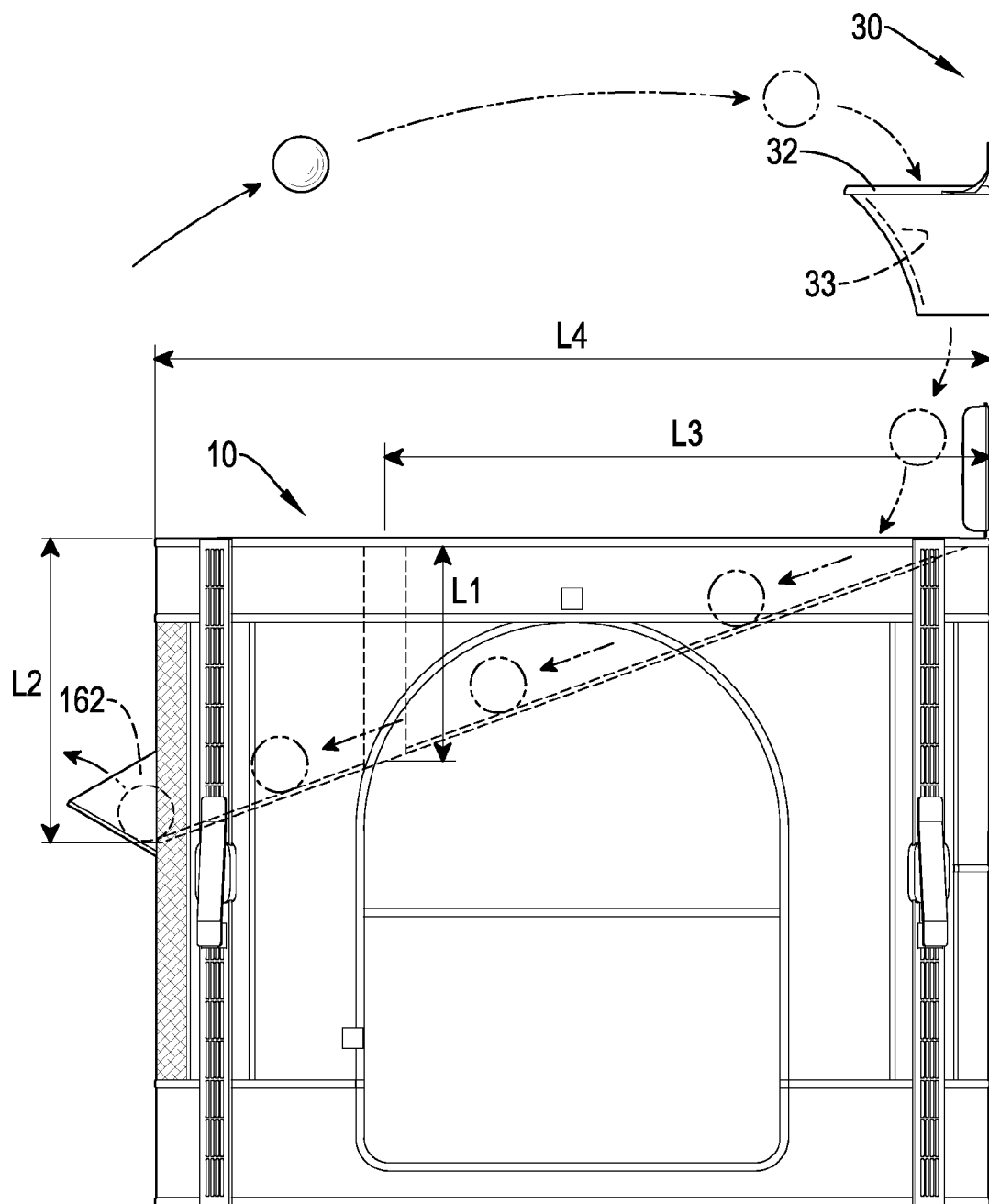


FIG.5

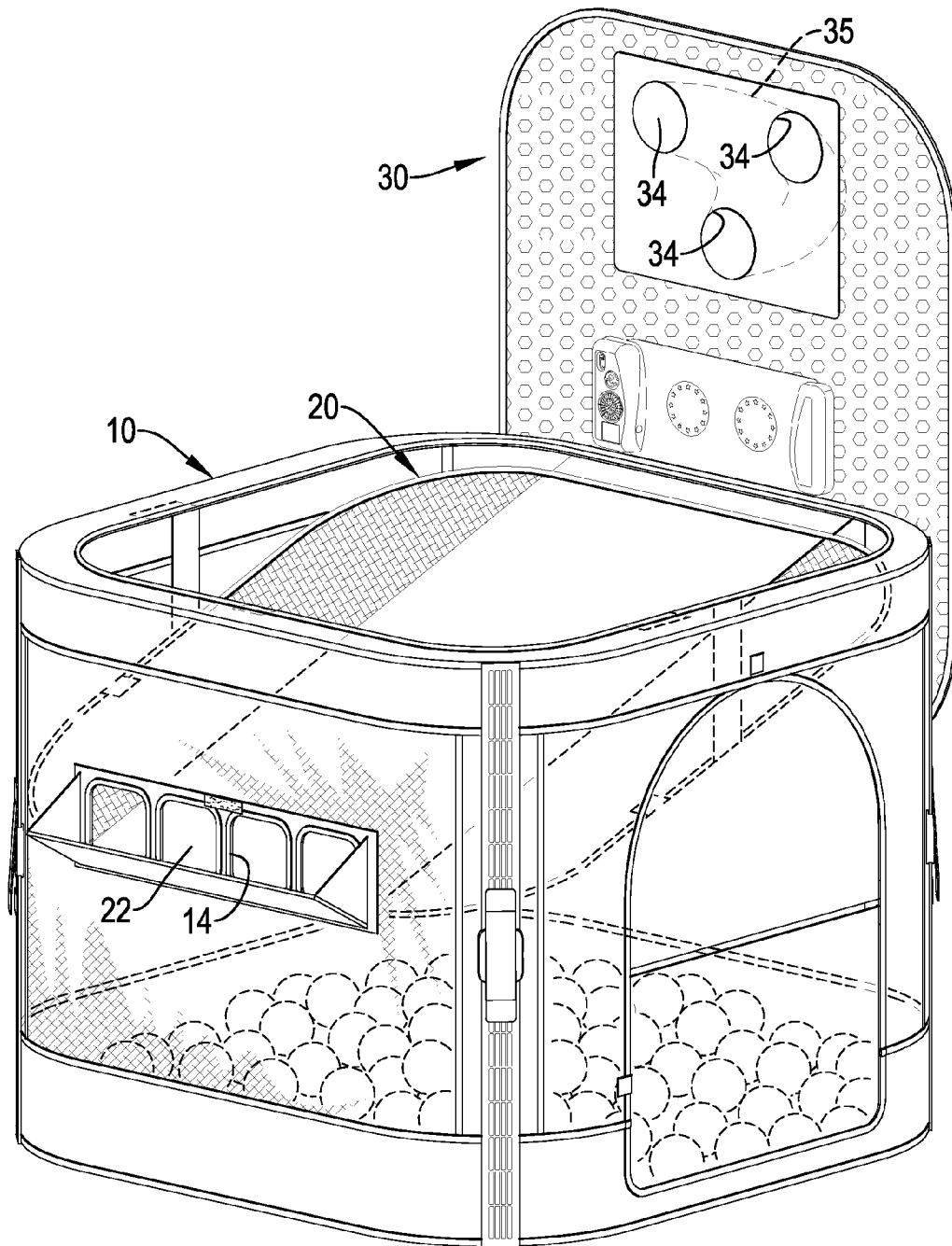


FIG.6

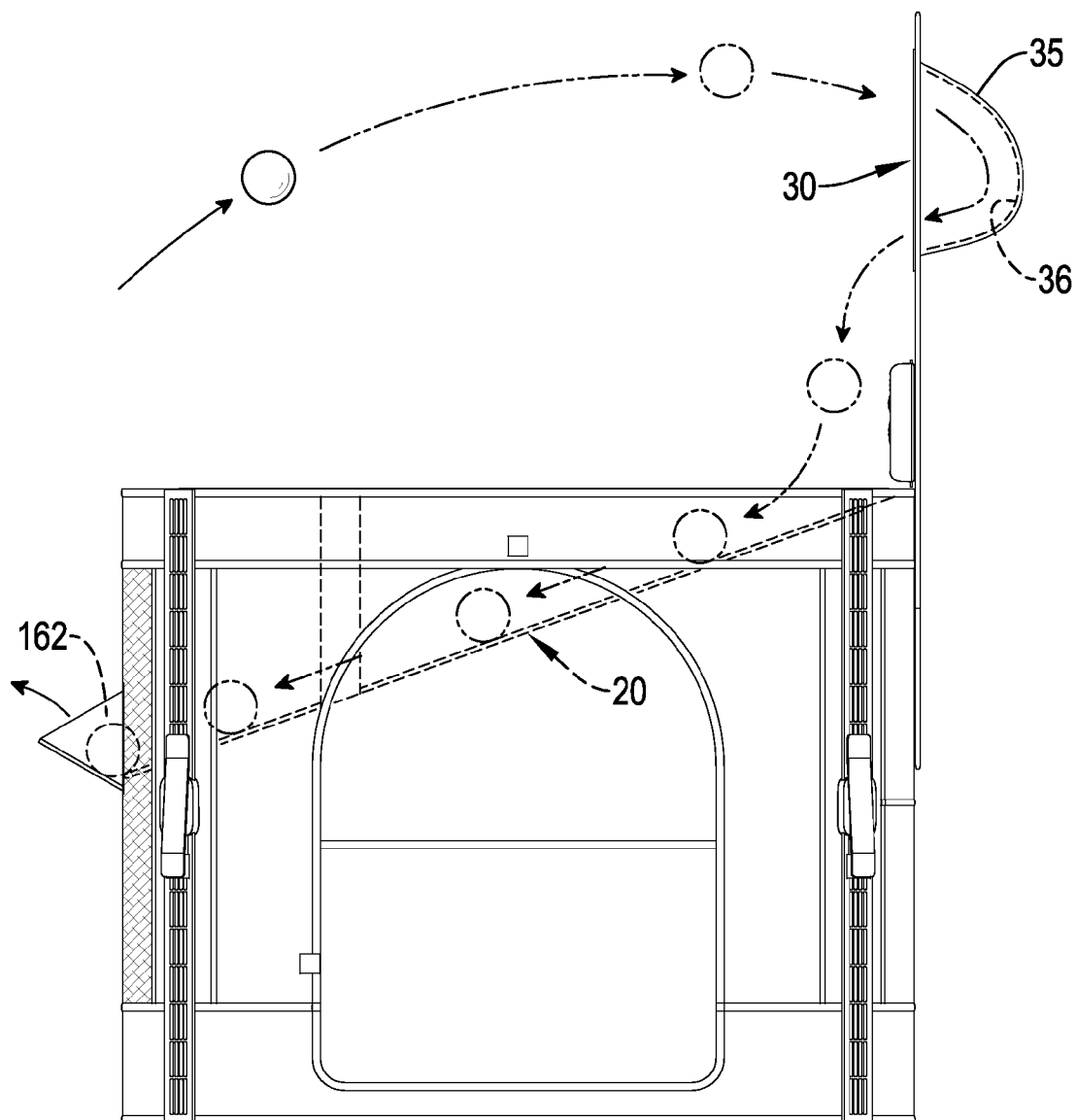


FIG.7

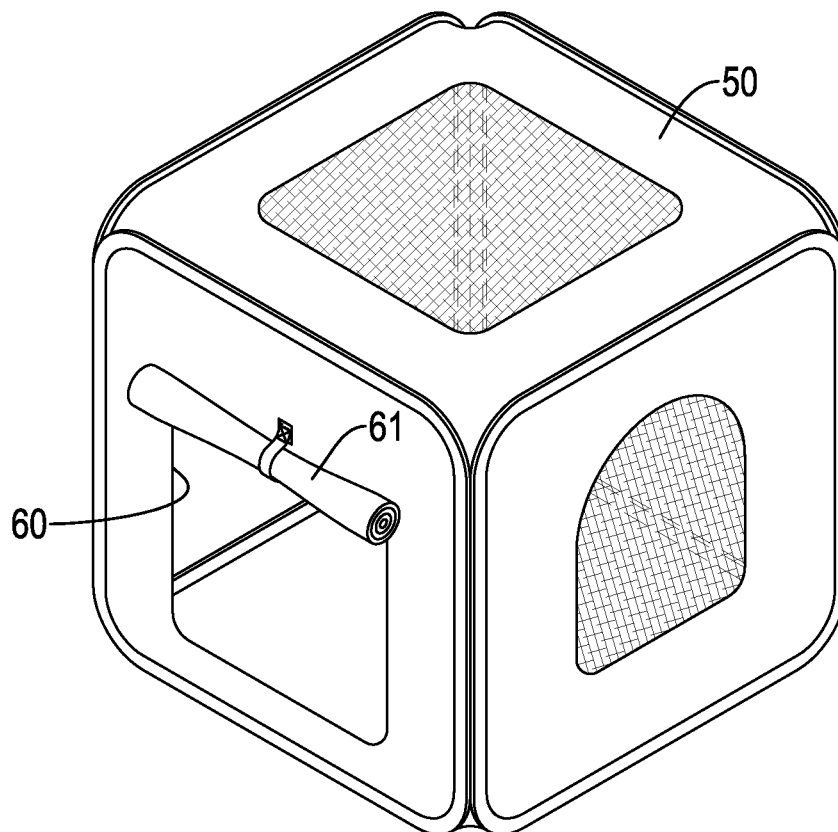


FIG.8
PRIOR ART

1

MULTIFUNCTIONAL PLAY TENT**BACKGROUND OF THE INVENTION****1. Field of the Invention**

The present invention relates to a play tent, and more particularly to a multifunctional play tent.

2. Description of Related Art

With reference to FIG. 8, a conventional play tent **50** is set up by multiple flexible steel columns and covered by a screen. The conventional play tent **50** comprises an opening **60**. The opening **60** is formed in a side of the play tent **50** and selectively sheltered by a curtain **61**. A child can enter or exit the play tent **50** through the opening **60**.

The play tent **50** can provide a private space for the child. The child can read books, sleep, or do other activities in the play tent **50**, which can help the child to develop an independent personality. However, the child can only be engaged in sedentary activities in the play tent **50**, so the functionality of the conventional play tent **50** is insufficient.

SUMMARY OF THE INVENTION

The main object of the present invention is to provide a multifunctional play tent, which comprises a tent body, a roof, and a game device board.

The tent body has a top, a bottom, a periphery formed between the top and the bottom, a tent space formed in the tent body, a gateway formed through the periphery and communicating with the tent space, a roof opening formed through the tent body, located in the top of the tent body, and communicating with the tent space, and at least one ball opening formed through the periphery, communicating with the tent space, and having at least one bottom corresponding to the at least one ball opening in amount.

The roof is connected with the tent body, selectively closes the roof opening, and has a connecting end connected with the tent body and opposite to the at least one ball opening, and a ball end opposite to the connecting end. The roof is moveable relative to the tent body with respect to the connecting end, and is selectively combined with the tent body. The game device board is mounted on the at least one ball opening.

The roof can be put down to make the ball end correspond to the at least one ball opening. A child can pitch or kick a ball toward the game device board, and then the ball can roll along the roof to the at least one ball opening. The child can pick up the ball from the at least one ball opening again. Alternatively, the roof can close the roof opening. The child can enter into the tent space to be engaged in activities. Therefore, the play tent can provide the child with a variety of options to increase multiple functions for use.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a first preferred embodiment of a multifunctional play tent in accordance with the present invention;

FIG. 2 is an exploded perspective view of the multifunctional play tent in FIG. 1;

FIG. 3 is an operational perspective view of the multifunctional play tent in FIG. 1;

FIG. 4 is an operational perspective view of the multifunctional play tent in FIG. 1;

FIG. 5 is an operational side view of the multifunctional play tent in FIG. 1

2

FIG. 6 is a perspective view of a second preferred embodiment of a multifunctional play tent in accordance with the present invention;

FIG. 7 is an operational side view of the multifunctional play tent in FIG. 6; and

FIG. 8 is a perspective view of a conventional play tent.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

With reference to FIG. 1, a first preferred embodiment of a multifunctional play tent in accordance with the present invention comprises a tent body **10**, a roof **20** and a game device board **30**.

The tent body **10** is cubical and set up by multiple flexible steel columns. The tent body **10** comprises a bottom, a top, a periphery, four sides, a tent space **11**, a gateway **12**, a roof opening **13**, four ball openings **14**, and four support frames **15**. The periphery is formed between the top and the bottom of the tent body **10**. In the preferred embodiment, the tent body **10** is cubical, so the four sides are formed around the periphery. Alternatively, the tent body **10** may be spherical. The tent space **11** is formed in the tent body **10**. The gateway **12** is formed through the periphery, is located in one of the sides of the tent body **10** and communicates with the tent space **11**. A child can enter or exit the tent body **10** through the gateway **12**, and the gateway **12** is selectively sheltered by a curtain **121** to increase privacy in the play tent. The roof opening **13** is formed in a top of the tent body **10** and communicates with the tent space **11**. The ball openings **14** are formed through the periphery, located in one of the sides of the tent body **10** adjacent to the side in which the gateway **12** is formed, and the ball openings **14** are adjacent to the top of the tent body **10**.

With reference to FIG. 1, FIG. 2, and FIG. 3, the support frames **15** are elongated and arranged around the periphery of the tent body **10**. Each support frame **15** is connected between the top and the bottom of the tent body **10**. The support frames **15** can be selectively disassembled, such that the tent body **10** can be folded to decrease the required storage space for the tent body **10** since the tent body **10** is set up by flexible steel columns. A rack **16** is connected with the tent body **10**, is located out of the tent space **11** at a position corresponding to the ball openings **14**, and has four sides. Three of the sides of the rack **16** are connected with the tent body **10**, and the last one of the sides of the rack **16** is selectively combined with the tent body **10** to close the ball openings **14**. The rack **16** is combined with the tent body **10** by velcros **161** or buckles. A rack space **162** is formed between the rack **16** and the tent body **10**.

With reference to FIG. 1, FIG. 4 and FIG. 5, the roof **20** is connected with the tent body **10** and selectively closes the roof opening **13**. The roof **20** may be combined with the tent body to close the roof opening **13** by velcros **24** or buckles. The roof **20** comprises a connecting end **21** and a ball end **22**. The connecting end **21** is connected with the side of the tent body **10** that is opposite to the ball openings **14**, and is located in the top of the tent body **10**. The ball end **22** is opposite to the connecting end **21** and is moveable relative to the tent body **10** with respect to the connecting end **21**. The ball end **22** is either combined with the top of the tent body **10** or located at the bottom of the ball openings **14**. Two connecting belts **23** are connected between the roof **20** and the top of the tent body **10** to hold and position the ball end **22** at the bottom of the ball openings **14**. Each connecting belt **23** has a middle along the longitudinal direction of the connecting belt **23**.

3

Each connecting belt **23** has a first length L1. A second length L2 is defined between the top of the tent body **10** and the bottom of the ball openings **14**. A third length L3 is defined between the side of the tent body **10** that is opposite to the ball openings **14** and the middle of one of the connecting belts **23**. A fourth length L4 is defined between the side of the tent body **10** corresponding to the connecting end **21** in position and the side of the tent body **10** corresponding to the ball openings **14** in position. The position of each of the connecting belts **23** relative to the roof **20** is proportional. The ratio of the first length L1 to the second length L2 is equal to that of the third length L3 to the fourth length L4. Therefore, when the roof **20** is put down, the ball end **22** is located at the bottom of the ball openings **14**. Alternatively, the ball end **22** may be combined with the tent body **10** at a position corresponding to the bottom of the ball openings **14** by buckles or any other connecting structure.

With reference to FIG. 1, FIG. 2, and FIG. 5, the game device board **30** is mounted on the side of the tent body **10** that is opposite to the ball openings **14**. The game device board **30** may be fixed on the tent body **10** or separably combined with the tent body **10**. The game device board **30** may be combined with the tent body **10** by velcros **31** or buckles.

The game device board **30** has a ball basket **32** and a ball channel **33**. The ball basket **32** is mounted on a side of the game device board **30** facing the tent body **10** and is located above the tent body **10**. The ball channel **33** is formed in the ball basket **32** and extends toward the roof **20**.

With reference to FIG. 1 and FIG. 5, in use, the roof **20** is put down until the ball end **22** corresponds to the ball openings **14** in position. A child can stand outside the tent body **10**, face the ball openings **14**, and pitch a ball into the ball basket **32**. The ball goes through the ball channel **33**, falls on the roof **20**, rolls toward the ball openings **14** along the inclined roof **20**, and enters the rack space **162** through one of the ball openings **14**. The child can pick up the ball from the rack space **162** and pitch the ball again.

With reference to FIG. 1 and FIG. 4, the roof **20** can be lifted up to close the roof opening **13** and is combined with the tent body **10**. A child can enter the tent body **10** and be engaged in sedentary activities. The play tent can provide a private space for the child to help the child develop an independent personality. When the play tent is not in use, the support frames **15** can be disassembled and then the tent body **10** can be folded to decrease the storage space.

With reference to FIG. 6 and FIG. 7, in a second preferred embodiment of the present invention, the game device board **30** comprises three board openings **34**, a ball pocket **35**, and a ball channel **36**. The board openings **34** are formed through the game device board **30**. The ball pocket **35** is connected with the game device board **30** at a side opposite to the tent body **10** and communicates with the board openings **34**. The ball channel **36** is formed in the ball pocket **35**.

In use, the roof **20** is put down to correspond to the ball openings **14** in position. A child can stand outside the tent body **10** facing the ball openings **14**, and throw or kick a ball through one of the board openings **34** to enter the ball pocket **35**. The ball moves in the ball channel **36**, exits the ball pocket **35** through one of the board openings **34** and falls on the roof **20**. The ball will roll toward the ball openings **14** along the inclined roof **20** and enter the rack space **162**. The child can pick up the ball from the rack space **162** and throw or kick the ball again.

4

What is claimed is:

1. A play tent comprising:

- a tent body having
 - a top;
 - a bottom;
 - a periphery formed between the top and the bottom;
 - a tent space formed in the tent body;
 - a gateway formed through the periphery and communicating with the tent space;
 - a roof opening formed through the tent body, located in the top of the tent body, and communicating with the tent space; and
 - at least one ball opening formed through the periphery, communicating with the tent space, and each one of the at least one ball opening having a bottom;
 - a roof connected with the tent body, selectively closing the roof opening and having
 - a connecting end connected with the tent body and being opposite to the at least one ball opening; and
 - a ball end opposite to the connecting end, the ball end being moveable relative to the tent body with respect to the connecting end, and selectively combined with the tent body;
 - a connecting belt connected between the top of the tent body and the roof;
 - at least one hook and loop fastener mounted between the roof and the tent body to selectively combine the roof with the tent body; and
 - a game device board separably mounted on the tent body and being opposite to the at least one ball opening and wherein a ball basket is mounted on the game device board facing the tent body; and a ball channel is formed in the ball basket and extends toward the roof.
2. The play tent as claimed in claim 1, wherein the tent body further has multiple support frames, wherein each support frame is elongated and disassemblably connected between the top and the bottom of the tent body.
3. The play tent as claimed in claim 2, wherein
- a ball basket is mounted on the game device board facing the tent body; and
 - a ball channel is formed in the ball basket and extends toward the roof.
4. The play tent as claimed in claim 2, wherein multiple board openings are formed through the game device board;
- a ball pocket is connected with the game device board opposite to the tent body and communicates with the board openings; and
 - a ball channel is formed in the ball pocket.
5. The play tent as claimed in claim 2 further comprising:
- a rack connected with the tent body, located out of the tent space at a position corresponding to the at least one ball opening, and selectively closing the at least one ball opening.
6. The play tent as claimed in claim 5, wherein
- a ball basket is mounted on the game device board facing the tent body; and
 - a ball channel is formed in the ball basket and extends toward the roof.
7. The play tent as claimed in claim 5, wherein multiple board openings are formed through the game device board;
- a ball pocket is connected with the game device board opposite to the tent body and communicates with the board openings; and
 - a ball channel is formed in the ball pocket.
8. The play tent as claimed in claim 5, wherein the connecting belt has a middle;
- a first length is defined along the connecting belt;

5

a second length is defined between the top of the tent body and the at least one bottom of the at least one ball opening;

a third length is defined between a side of the tent body that is opposite to the at least one ball opening and the middle of the connecting belt; 5

a fourth length is defined between a side of the tent body corresponding to the connecting end in position and the side of the tent body corresponding to the at least one ball opening in position; wherein 10

a ratio of the first length to the second length is equal to a ratio of the third length to the fourth length.

9. The play tent as claimed in claim **8**, wherein

a ball basket is mounted on the game device board facing the tent body; and 15

a ball channel is formed in the ball basket and extends toward the roof.

10. The play tent as claimed in claim **8**, wherein 20

multiple board openings are formed through the game device board;

a ball pocket is connected with the game device board opposite to the tent body and communicates with the board openings; and 25

a ball channel is formed in the ball pocket.

6

11. The play tent as claimed in claim **8**, wherein at least one velcro is mounted between the rack and the tent body to selectively combine the rack and the tent body; and

at least one velcro is mounted between the game device board and the tent body to selectively combine the tent body and the game device board.

12. The play tent as claimed in claim **11**, wherein

a ball basket is mounted on the game device board facing the tent body; and

a ball channel is formed in the ball basket and extends toward the roof.

13. The play tent as claimed in claim **11**, wherein

multiple board openings are formed through the game device board;

a ball pocket is connected with the game device board opposite to the tent body and communicates with the board openings; and

a ball channel is formed in the ball pocket.

14. The play tent as claimed in claim **1**, wherein

multiple board openings are formed through the game device board;

a ball pocket is connected with the game device board opposite to the tent body and communicates with the board openings; and

a ball channel is formed in the ball pocket.

* * * * *